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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,267	04/16/2001	Klaus Schumann	RO0234US	5473

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EXAMINER

CHAN, SING P

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 08/01/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/763,267

Applicant(s)

SCHUMANN ET AL.

Examiner

Sing P Chan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear if the temperature of the sealing heads is lowered in response to the longer sealing period. The claim seems to direct the temperature of the tool is lowered in response to an increase to sealing period during the cycle. The disclosure suggested temperature of the tool is set at a lower temperature than the prior art for with the same sealing period. For the purpose of examination, "the temperature of the tool is set at a lower temperature" will be assume.

Regarding claim 1, it is unclear what is intended with "increasing the sealing period by a factor." Since the length of time for the sealing period is not recited.

Regarding claim 1, it is unclear what is intended by the phase "only slightly above the melting point." The phase "only slightly" is a relative expression not defined by the applicant. For the purpose of examination, "above the melting point" will be assumed.

Regarding claim 2, it is unclear if pressure lowered during the cycle or the pressure is set at a lower level relative to the reference or prior art pressure. Since the disclosure does not recite the reference or prior art pressure, it is not possible to determine the meets and bounds of the claim.

Regarding claim 5, it is unclear what is intended with the phrase "factor is two" since a reference time is not recited. The applicant appears to define "doubling," i.e. increasing by a factor of 2, as any increases. (Specification, Page 3, lines 20-25) This use of the term "doubling" is considered repugnant to the normal meaning of the term. For the purpose of examination a factor of 2 is assumed to mean twice.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Wilson (U.S. 3,830,681).

The admitted prior art discloses a method of producing a hot seal TTS pack by transporting two laps with weldable polymer layer as the inner layer and welding and sealing the pack by heating and melting the polymer layers with heated sealing tool. (See Specification, Page 1, lines 9-25) The admitted prior art does not disclose increasing the sealing period nor decreasing the sealing tool temperature. Wilson discloses a method of heat sealing a package while minimizing the distortion of the seal.

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The method includes using impulse sealing with low heat input, which provides minimal heat thereby allowing a longer clamp time without increasing the cycle time. The impulse sealer is heated only 10°F above the melting point of the polymer layer while the jaws are maintained just below the melting point. The total time required for the impulse sealer is short and so film would only be heated slightly above the melting point. (Col 3, lines 1-11, Col 4, lines 38-61, and Col 8, lines 19-41)

It would have been obvious to one skilled in the art at the time the invention was made to utilize the longer clamp time and lower temperature as disclosed by Wilson in the method of the admitted prior art to seal package and form a strong seal without distorting the seal.

5. Claim 2 rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Wilson (U.S. 3,830,681) as applied to claim 1 above, and further in view of Shanklin et al (U.S. 5,131,213).

The admitted prior art as modified above is silent as to reducing the sealing pressure. Shanklin et al teaches using a lowered sealing pressure at the sealing jaw with low temperature to prevent weakening of the film adjacent to the seal.

It would have been obvious to one skilled in the art at the time the invention was made to use a lowered sealing pressure, which would prevent weakening of the film adjacent to the seal, as taught by Shanklin et al in the method of the admitted prior art to prevent weakening of the seal.

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6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Wilson (U.S. 3,830,681) as applied to claim 1 above, and further in view of Doering, Jr. (U.S. 3,813,846).

The admitted prior art as modified above does not disclose the pack material is brought into contact with the sealing head on a second occasion using the same sealing period. However, Doering, Jr. teaches a sequentially repeatedly the sealing operation improves throughput. (Col 4, lines 20-44)

It would have been obvious to one skilled in the art at the time the invention was made to sequentially repeat the sealing operation of two or more times as taught by Doering, Jr. in the method of the admitted prior art to provide a high speed and complete sealing of the pack material.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Doering Jr. (U.S. 3,813,846) and optionally Wilson (U.S. 3,830,681).

The admitted prior art as modified above discloses a device for sealing the pack material includes two heated sealing heads with the second sealing head facing the first sealing head arranged on opposite side of the pack material. (See Specification, Page 1, lines 21-25) The admitted prior art does not disclose the sealing heads having two or more identical contact area structures for transmitting temperature and pressure to the pack material in the direction of advance corresponding to the advancement cycle. However, Doering, Jr. discloses a heated sealing head with repeated sealing elements in the direction of advance for repeat sealing operation, which improves throughput. (Col 4, lines 20-35)

It would have been obvious to one skilled in the art at the time the invention was made to provide additional identical contact area structures for temperature and pressure transmission in the method of the admitted prior art to allow faster sealing of the pack material as suggested by Doering, Jr. The device of the admitted prior art is considered to be adjustable for time and temperature, (Specification, Page 1 and Prior art table, Page 7) and as such, the device as modified would be capable of the process steps recited in claim 1. In any event, Wilson suggests using an impulse sealer to provide a low heat input and allowing a longer clamp time without increasing the cycle time. The impulse sealer is heated only 10°F above the melting point of the polymer layer while the jaws are maintained just below the melting point. The total time required for the impulse sealer is short and so film would only be heated slightly above the melting point. (Col 3, lines 1-11, Col 4, lines 38-61, and Col 8, lines 19-41)

It would have been obvious to one skilled in the art at the time the invention was made to utilized the longer clamp time and lower temperature as disclosed by Wilson in the method of the admitted prior art to seal package and form a strong seal without distorting the seal.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Wilson (U.S. 3,860,681) as applied to claim 1 above, and further in view of Suzuki et al (U.S. 5,204,181).

The admitted prior art as modified by Wilson does not disclose a factor of 2. Suzuki et al teaches the increasing the length of time for the sealing period to twice the

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amount of time would increase the heat seal strength. (Col 11, lines 33-37 and Tables 1 and 2)

It would have been obvious to one skilled in the art at the time the invention was made to increase the sealing period time by a factor of 2 as taught by Suzuki et al in the method of the admitted prior art to produce a stronger seal.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sing P Chan whose telephone number is 703-305-3175. The examiner can normally be reached on Monday-Friday 7:30AM-12:00PM and 1:00PM-4:30PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 703-308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Sing P Chan
Examiner
Art Unit 1734

spc
July 29, 2002



CURTIS MAYES
PRIMARY EXAMINER